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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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EXAMINER

ART UNIT

PAPER NUMBER

DATE MAILED:

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/273,261	HATTORI ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Quynh-Nhu H. Vu	2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

#### Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)      18) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)      19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_      20) ☐ Other: \_\_\_\_

The Lin reference is withdrawn in view of the certified English translation of the priority document.

### **DETAILED ACTION**

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claim 1 is rejected under 35 U.S.C 102(e) as being clearly anticipated by Iwanaga et al. [PN 5,739,946].

Iwanaga et al. disclose in Figs. 18-19 a display device comprising: an adhesive layer (epoxy resin 22) which contains carbon black dispersed therein and is formed on one surface of a transparent substrate (col. 12, line 62-col.13, line 1). The film (22) also has the property of adjusting the quantity of transmitted light from a light source and adjusting color shades because its has the same structure as that of the film of claim 1.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Iwanaga et al. [PN 5,739,946] in view of Aoyama et al. [PN 6,147,732].

Iwanaga et al., as applied in prior rejection, disclose all claimed subjected matter except an anti-reflection layer formed on one surface.

Aoyama et al. disclose in Fig. 38 an anti-reflection layer (15) formed on one surface (25) for preventing the light from being reflected (col. 4, lines 61-63).

Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to add an anti-reflection layer formed on one surface of the substrate to prevent undesirable light reflection, as disclosed by Aoyama et al.

3. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwanaga et al. [PN 5,739,946].

For adjusting colors different from black, e.g. blue or red, it would have been obvious to a person of ordinary skill in the art to employ red or blue pigment in the film for adjusting color display, as disclosed by Iwanaga et al. (col. 19, lines 29-49).

4. Claim 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwanaga et al. [PN 5,739,946] in view of Kawazu et al. [PN 5,876,854].

Iwanaga et al., as applied in prior rejection, disclose all claimed subject matter except the attachment film being colored in neutral gray.

Kawazu et al. disclose the attachment film being colored in neutral gray. The a-value and b-value of neutral gray which are within  $\pm 5$  each when measured with a color-

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different meter to reduce the dazzle caused by reflection and in order to assure correct color of displayed image (column 3 lines 15-34).

Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to make attachment film having color in neutral gray; and neutral gray having an a-value and b-value are within  $\pm 5$  to reduce the dazzle caused by reflection and in order to assure correct color of displayed image.

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Iwanaga et al. [PN 5,739,946] in view of Matsubaguchi et al. [PN 6,030,689].

Matsubaguchi et al. disclose carbon black in the adhesive layer being an average particle diameter from 5 to 80 nm, and a specific surface area of from 100 to 500 m<sup>2</sup>/g.

Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to have the carbon black having the above-mentioned characteristics for effectively adjusting light.

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Iwanaga et al. [PN 5,739,946] in view of Conforti et al. [PN 5,620,819] and Ueda et al. [PN 5,968,244].

Iwanaga et al., as applied in prior rejection, disclose all claimed subject matter except adhesive layer containing an acrylic adhesive having a carboxyl group and/or a hydroxyl group and the carbon black is an acidic carbon black.

Conforti et al. disclose an adhesive layer (18) having a carboxyl groups to develop rapidly substantial precuring and pre-curing adhesion (column 16 lines 54-59).

Ueda et al. disclose a carbon black being an acidic carbon black to produce excellent dispersibility in water by increasing the surface area and having chemical properties akin to water-soluble dyes (column 2 lines 52-58).

Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to make adhesive layer containing an acrylic adhesive having a hydroxyl group or carboxyl group to develop rapidly substantial precuring and pre-curing adhesion. Also, it is known that carbon black is acidic to produce excellent dispersibility in water by increasing the surface area and having chemical properties akin to water-soluble dyes.

7. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwanaga et al. [PN 5,739,946] in view of Urano et al. [PN 5,800,952].

Iwanaga et al., as applied in prior rejection, disclose all claimed subject matter except that the adhesive layer further contains a photopolymerizable compound and a photopolymerization initiator. The adhesive layer contains a (meth) acrylate resin as an adhesive and a (meth) acrylate monomer or oligomer as photopolymerizable compound.

Urano et al. disclose the adhesive layer further contains a photopolymerizable compound and a photopolymerization initiator to improve the developability, the sensitivity, the image-reproducing property and the adhesive property. The organic binder polymer material may, for example, be an alkyl ester which may have a substituent, of (meth) acrylate) and alkali-solute polymer comprising a monomer having (meth) acrylic acid monomer or photopolymerizable compound to develop with alkali

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aqueous solution but not with organic solvent (column 2 lines 12-41 and Column 7 lines 17-36).

Therefore, It would have been obvious at the time the invention was made to a person having ordinary skill in the art to have adhesive layer containing a photopolymerizable compound, a photopolymerization initiator, (meth) acrylate resin to improve the developability, the sensitivity, the image-reproducing property and the adhesive property.

8. Claims 8-10 are alternatively rejected under 35 U.S.C. 103(a) as being unpatentable over Iwanaga et al. [PN 5,739,946] in view of Komiyama et al. [PN 5,356,949].

Iwanaga et al., as applied in prior rejection, disclose all claimed subject matter except that the adhesive layer contains an acrylic adhesive having a carboxyl group and/or hydroxyl group and the carbon black is an acidic carbon black. The adhesive layer further contains a photopolymerizable compound and a photopolymerization initiator. The adhesive layer contains a (meth)acrylate resin as an adhesive and a (meth)acrylate monomer or oligomer as the photopolymerizable compound.

Regarding claim 8, Komiyama et al. disclose an adhesive layer contains an acrylic adhesive i.e. epoxy acrylate, polyester acrylate, (meth)acrylic acid, epoxy acrylate etc... having carboxyl group and hydroxyl group (col. 3, line 19-col.4, line 42).

Regarding claims 9-10, Komiyama et al. disclose an adhesive layer contains a photopolymerizable compound and a photopolymerization initiator; a (meth)acrylate resin as an adhesive (Abstract, col. 3, line 19-col.7, line 41).

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Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to have the adhesive layer contains an acrylic adhesive, a photopolymerizable compound, a photopolymerizable initiator etc... for the benefits of improving the developability, the sensitivity, the image-reproducing property and the adhesive property.

9. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Iwanaga et al. [PN 5,739,946] in view of Aoyama et al. [PN 6,147,732].

Iwanaga et al., as applied in prior rejection, disclose all claimed subject matter except for a hard coating layer and an anti-reflecting layer being consecutively formed on the other surface of a transparent substrate.

Aoyama et al. disclose in Fig. 38 that the adhesive layer (12) is formed on one surface of a transparent substrate (25) and a hard coating layer (10) and an anti-reflecting layer (15) are consecutively formed on the other surface of the transparent substrate. It is noted that the materials of hard coating layer (10) of Aoyama et al. (col. 7, lines 26-34) are the same materials as those of applicant (page 7 of specification, lines 4-6, i.e. acrylic resin).

Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ adhesive layer being formed on one surface of a transparent substrate. And a hard coating layer and an anti-reflecting layer being consecutively formed on the other surface of the transparent substrate, for the ease to see the display image.



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***Response to Arguments***

10. Applicant's arguments with respect to claims 1-10 have been considered but are moot in view of the new ground(s) of rejection.

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quynh-Nhu H. Vu whose telephone number is 703-305-0850. The examiner can normally be reached on 7:30-5:00 (M-F).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Sikes can be reached on 703-308-4842. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7724 for regular communications and 703-308-7721 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

QNV  
February 12, 2001



William L. Sikes  
Supervisory Patent Examiner  
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